

We claim:

1 1(previously presented). Process for manufacturing expanded metal
2 provided with a coating, comprising: applying the coating to a closed metal foil
3 and converting the closed metal foil into expanded metal only after applying
4 the coating.

1 2(previously presented). Process in accordance with claim 1, wherein
2 the coating is a coating that improves at least one of adhesiveness of the
3 expanded metal to an electrode material and electron conductivity on a
4 surface of the expanded metal.

1 3(previously presented). Process in accordance with claim 1, wherein
2 the coating contains at least one of graphite, another carbon material together
3 with a binder that improves the adhesiveness and one of an organic and
4 inorganic-organic polymer, which is graphitized after the application to the
5 metal.

1 4(previously presented). Process in accordance with claim 1, wherein
2 the metal comprises one of copper and aluminum.

3 5(previously presented). Process in accordance with claim 1, wherein
4 the metal foil is subjected to a corona discharge surface treatment before it is
5 coated.

1 6(previously presented). Process in accordance with claim 1, wherein
2 when the metal foil is converted into said expanded metal, with a short
3 diagonal length of up to 1 mm and a long diagonal length of up to 2 mm.

1 7(previously presented). Process in accordance with claim 1, wherein
2 the coating is applied by means of at least one of a printing technique, spin

3 coating, rolling, application with a doctor blade, dip coating, electrostatic
4 powder coating and by means of a plasma process.

1 8(withdrawn). Expanded metal provided with a coating,
2 manufactured according to a process in accordance with claim 1.

1 9(withdrawn). Expanded metal provided with a coating, obtained
2 according to a process in accordance with claim 1.

1 10(withdrawn). Expanded metal provided with a coating in
2 accordance with claim 2.

1 11(withdrawn). Expanded metal provided with a coating in
2 accordance with claim 3.

1 12(currently amended). **A method, comprising:** ~~The method of~~
2 ~~claim 2, further comprising~~
3 **applying a coating to a closed metal foil, wherein the coating is a**
4 **coating that improves at least one of adhesiveness of the expanded**
5 **metal to an electrode material and electron conductivity on a surface;**
6 **converting the closed metal foil into expanded metal only after**
7 **applying the coating; and**
8 **collecting a current by** use of said expanded metal as a current
9 collector associated with one of an anode foil and a cathode foil.

1 13(currently amended). The method of claim 12, further comprising
2 laminating together the current collector **and one of** ~~in~~ said anode foil and said
3 cathode foil.

1 14(currently amended). The method of claim 12, wherein ~~the~~ **at**
2 **least one said** anode foil and ~~the~~ cathode foil **is** ~~are~~ prepared without using a
3 plasticizing agent.

1 15(currently amended). **A method for manufacturing** ~~The method~~
2 ~~of claim 2, further comprising using the expanded metal in an electrochemical~~
3 ~~cell, especially a battery,~~ **comprising:**

4 **applying a coating to a closed metal foil, the coating improving at**
5 **least one of adhesiveness and electron conductivity;**

6 **converting the closed metal foil into expanded metal only after**
7 **applying the coating, thereby providing a current collector;**

8 **laminating the expanded metal with an anode foil;**

9 **applying a coating to an additional closed metal foil, the coating**
10 **improving at least one of adhesiveness and electron conductivity;**

11 **converting the additional closed metal foil into expanded metal**
12 **only after applying the coating, thereby providing an additional current**
13 **collector;**

14 **laminating the expanded metal from the additional closed metal**
15 **foil with a cathode foil;**

16 **providing a separator foil and laminating together the current**
17 **collector with the anode foil, the separator foil and the current collector**
18 **with the cathode foil.**

1 16(currently amended). The method of claim 15, wherein the
2 **electrochemical cell is configured as** ~~battery~~ is a lithium battery.

1 17(currently amended). The method of claim 16, wherein **at least**
2 **one of said anode foil and said cathode foil is prepared without using a**
3 ~~the battery was manufactured according to a technique that does not require~~
4 ~~addition of plasticizing agent and its subsequent washing out.~~

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